

Claims:

1. A telecommunications network device, comprising:
 - a plurality of distributed processors;
 - a data path coupled to the plurality of distributed processors; and
 - a switched control path coupled to the plurality of distributed processors.
2. The telecommunications network device of claim 1, wherein the switched control path is a first switched control path and further comprising:
 - a second switched control path coupled to the plurality of distributed processors.
3. The telecommunications network device of claim 2, wherein the first and second switched control paths comprise redundant switched control paths.
4. The telecommunications network device of claim 1, wherein the switched control path comprises an Ethernet switch.
5. The telecommunications network device of claim 4, wherein the Ethernet switch comprises:
 - an Ethernet switch subsystem; and
 - a plurality of physical Ethernet port chips coupled to the Ethernet switch subsystem,wherein each of the plurality of distributed processors is coupled with at least one of the plurality of physical Ethernet port chips.
6. The telecommunications network device of claim 5, wherein the plurality of physical Ethernet port chips is a first plurality of physical Ethernet port chips and the Ethernet switch subsystem comprises:
 - an Ethernet switch chip; and
 - a second plurality of physical Ethernet port chips coupled with the Ethernet switch chip, wherein the second plurality of Ethernet port chips are further coupled with the first plurality of physical Ethernet port chips.

7. The telecommunications network device of claim 1, wherein the switched control path comprises a proprietary bus.
8. The telecommunications network device of claim 1, wherein the switched control path comprises an Asynchronous Transfer Mode network.
9. The telecommunications network device of claim 1, wherein the switched control path comprises a Multi-Protocol Label Switching network.
10. The telecommunications network device of claim 1, further comprising:
a plurality of cards, wherein at least one of the plurality of processors is mounted on each of the plurality of cards.
11. The telecommunications network device of claim 1, wherein at least a portion of the plurality of distributed processors are coupled to the switched control path through multiple independent ports.
12. The telecommunications network device of claim 1, further comprising:
an external port coupled with the switched control plane.
13. A telecommunications network device, comprising:
a plurality of distributed processors;
a data path coupled to the plurality of distributed processors; and
a control path, including a plurality of control links, wherein at least one of the plurality of control links is coupled with each of the plurality of distributed processors.
14. The telecommunications network device of claim 13, wherein the control links comprise:
Ethernet ports.

15. A telecommunications network device, comprising:

- a plurality of distributed processors;
- a data path coupled to the plurality of distributed processors; and
- a control path coupled to the plurality of distributed processors, wherein separate control path resources are dedicated to each of the plurality of distributed processors.

16. The telecommunications network device of claim 16, wherein the separate control path resources comprise:

- an Ethernet port.

17. A telecommunications network, comprising:

- a plurality of network devices, wherein at least a portion of the plurality of network devices each comprise:

- a plurality of distributed processors;
- a data path coupled to the plurality of distributed processors; and
- a switched control path coupled to the plurality of distributed processors.

18. The telecommunications network of claim 17, wherein the switched control path within each of the portion of the plurality of network devices is connected together as a multi-chassis switched control path.

19. A telecommunications network, comprising:

- a plurality of network devices, wherein at least a portion of the plurality of network devices each comprise:

- a plurality of distributed processors;
- a data path coupled to the plurality of distributed processors; and
- a control path, including a plurality of control links, wherein at least one of the plurality of control links is coupled with each of the plurality of distributed processors.

20. The telecommunications network of claim 19, wherein the control path within each of the portion of the plurality of network devices is connected together as a multi-chassis control path.
21. A telecommunications network, comprising:
a plurality of network devices, wherein at least a portion of the plurality of network devices each comprise:
a plurality of distributed processors;
a data path coupled to the plurality of distributed processors; and
a control path coupled to the plurality of distributed processors, wherein separate control path resources are dedicated to each of the plurality of distributed processors.
22. The telecommunications network of claim 21, wherein the control path within each of the portion of the plurality of network devices is connected together as a multi-chassis control path.
23. A method of managing a telecommunications network device including a plurality of distributed processors, comprising:
transmitting network data through a data path within the network device; and
transmitting control information between the plurality of distributed processors through a switched control path.
24. The method of claim 23, wherein the switched control path is an Ethernet switch.
25. The method of claim 23, wherein the switched control path is an Asynchronous Transfer Mode network.
26. The method of claim 23, wherein the switched control path is a Multi-Protocol Label Switching (MPLS) network.
27. The method of claim 23, wherein the switched control path is a proprietary bus.

28. A method of managing a telecommunications network device including a plurality of distributed processors, comprising:
transmitting network data through a data path within the network device; and
transmitting control information between the plurality of distributed processors through a plurality of control links in a control path, wherein at least one of the plurality of control links is dedicated to each of the plurality of distributed processors.

29. A method of managing a telecommunications network device including a plurality of distributed processors, comprising:
transmitting network data through a data path within the network device; and
transmitting control information between the plurality of distributed processors through a control path, wherein separate control path resources are dedicated to each of the plurality of distributed processors.

30. A method of managing a telecommunications network including a plurality of network devices, wherein at least a portion of the plurality of network devices each includes a plurality of distributed processors and a control path coupling the plurality of distributed processors, comprising:
connecting each of the control paths in the portion of the plurality of network devices; and
transmitting control information between the plurality of network devices through the connected control paths.

31. The method of claim 30, wherein each control path comprises a switched control path.

32. The method of claim 30, wherein the switched control paths comprise Ethernet switches.

33. The method of claim 30, wherein each control path dedicates control path resources to each of the plurality of processors within the network device.
34. The method of claim 30, wherein each control path dedicates a control link to each of the plurality of processor within the network device.